

What is claimed is:

1. ~~A system for reading and writing indicia on a medium comprising:~~

~~a light source for producing a light beam;~~

~~reading means for directing said light beam at said medium so as to scan indicia disposed on a first portion of said medium, detecting at least a portion of the light of variable intensity reflected off the indicia, and generating an electrical signal indicative of the detected light intensity; and~~

~~writing means for directing said light beam at said medium in a pattern on a second portion of said medium so as record information on said medium.~~

2. A system as defined in claim 1, wherein said light source is a single laser diode.

3. A system as defined in claim 1, wherein said writing means includes means for pulsing said light source as said light beam is scanned in a pattern on said second portion of said medium.

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9. *A system as defined in claim 1, further comprising means for moving the medium in a path generally normal to the optical path of said light beam so as to effect scanning of said medium by said light beam as said medium is moved.*
10. *Apparatus for reading and writing indicia having portions of different light reflectivity such as bar code symbols or the like, comprising:*
- (a) a light source for emitting a light beam;*
 - (b) an optical component disposed in the path of said beam for directing the light beam along an optical path toward a target located in the vicinity of a reference plane lying generally normal to the optical path so as to scan spatially adjacent portions of said reference plane;*
 - (c) control means for operating said light source in a writing mode so as to direct light to portions of said target where indicia is to be written; and*
 - (d) sensor means having a field of view and operative in a reading mode for detecting a portion of light of variable intensity reflected off the target, and generating an electrical signal indicative of the detected light intensity.*

11. A method for reading and writing indicia on a medium comprising:

producing a light beam;

directing said light beam at said medium so as to illuminate a first portion of said medium, detecting at least a portion of the light of variable intensity reflected off the indicia, and generating an electrical signal indicative of the detected light intensity; and

directing said light beam at said medium in a pattern on a second portion of said medium so as record information on said medium.

12. A method as defined in claim 11, wherein said step of producing a light beam uses a single laser diode.

13. A method as defined in claim 11, further comprising the step of pulsing said light source as said light beam is scanned in a pattern on said second portion of said medium.

14. A method as defined in claim 11, further comprising the step of switching between said reading and writing on said medium.

15. A method as defined in claim 1, wherein said medium has a light and/or heat sensitive surface coating on said second portion of said medium so as to form indicia when said light beam is directed thereto.
16. A method as defined in claim 11, further comprising the step of processing said electrical signal to detect an indicia pattern representing a control indicia so as to change said system from a reading mode to a writing mode.
17. A method as defined in claim 11, further comprising said step of switching said system from writing mode to reading mode upon completion of a written operation so as to read the indicia which have been written and to verify their accuracy.
18. A method as defined in claim 11, further comprising the step of modifying the light beam in response to changing from reading mode to writing mode or vice versa.
19. A method as defined in claim 11, further comprising the step of moving the medium in a path generally normal to the optical path of said light beam so as to effect scanning of said medium by said light beam as said medium is moved.